

# Vertical

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Reprint of VOL.9 No.5

THE PULSE OF THE HELICOPTER INDUSTRY



## AIR METHODS

HEMS INDUSTRY HEAVYWEIGHT



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FROM HUMBLE BEGINNINGS TO BECOMING THE INDUSTRY'S LARGEST AIR MEDICAL PROVIDER, AIR METHODS HAS MAINTAINED ITS FOCUS ON PROVIDING TIMELY, SAFE AND QUALITY CARE.

by Elan Head

A Bell 407 operated by AirLife Denver, an Air Methods program, lifts off from Sky Ridge Medical Center in Lone Tree, Colo. The program is near Air Methods' corporate headquarters, just south of Denver. **Mike Reyno Photo**



When air medical transport is being promoted to policy-makers and the general public, the emphasis is usually on speed — in particular, the ability of air medical helicopters to transport trauma patients to hospitals within the so-called “golden hour.” For Air Methods chief executive officer Aaron Todd, this approach doesn’t exactly do the industry justice.

While speed is critical to what air medical helicopters do, their real value, said Todd, is in their ability to expand the reach of highly talented and skilled medical professionals. “Ground ambulances can extend that reach by 10 miles; a helicopter can expand the reach to 150 miles without compromising the response time.” It is that extended provision of efficient but quality medical care that Todd feels is the air medical industry’s uniquely valuable attribute and contribution.

No one knows more about “expanding reach” than Air Methods. It has been in the helicopter emergency medical services (HEMS) business for 30 years. From its humble beginnings with a single Bell LongRanger, the Colorado-based company has grown to become the largest HEMS operator in the United States, with 305 helicopters (and 12 airplanes) across 43 states. Air Methods now represents around 40 percent of the commercial HEMS fleet in the U.S., giving it enormous influence in one of the most heavily scrutinized sectors of the helicopter industry.

It is also one of the most saturated sectors. In contrast to some of its competitors, however, Air Methods has decided that — after a decade of explosive growth in the sector — there are enough air medical helicopters operating in the U.S. “We do not believe fundamentally that there needs to be a significant expansion of the [HEMS] fleet,” Todd told *Vertical*.

Today, as the company contends with the same regulatory,

public and competitive pressures facing the HEMS industry at large, its focus is not on opening new bases. Rather, Air Methods is strengthening existing relationships, exploring consolidation where appropriate, and striving to manage costs while maintaining its reputation for safety and quality. In August, *Vertical* paid a visit to Air Methods’ corporate headquarters in Englewood, Colo., to learn more about this HEMS industry heavyweight.

## ON SOLID GROUND

Air Methods was founded in 1980, when Roy Morgan purchased a Bell 206L and partnered with St. Mary’s Hospital in Grand Junction, Colo., to provide air medical services in western Colorado and eastern Utah. The privately held company grew then steadily through the 1980s. In 1991, it became publicly traded, setting the stage for the rapid growth the company would later experience through acquisitions.

Air Methods’ first significant acquisition came in 1997, when it purchased Mercy Air Service. Up to this point, all of Air Methods’ programs had been hospital-based services (HBS). With the acquisition of Mercy, it began providing community-based services (CBS) — independent helicopter emergency medical services not associated with specific hospitals.

Air Methods went on to acquire ARCH Air Medical Service Inc. in 2000, Rocky Mountain Holdings LLC in 2002 and CJ Systems Aviation Group in 2007. The Rocky Mountain and CJ acquisitions were particularly significant, respectively adding 82 and 115 air medical helicopters to the Air Methods fleet. More recently, in 2009, Air Methods acquired Omniflight’s Atlanta and northern Georgia operations.

Today, Air Methods employs more than 3,000 people





nationwide, and operates from 125 hospital bases and 113 community bases. In 2009, it flew 129,143 flight hours and 99,249 patient transports. In addition to its flight operations, it has a growing products division that designs, manufactures and certifies modular medical interiors and other aerospace and medical transport products (including medical interiors for the Sikorsky HH-60L Black Hawk variant operated by the U.S. Army).

Air Methods' total revenues in 2009 were \$510 million US — up slightly from 2008, despite a decline in flight volume related to weather and other factors. The company's dramatic growth over the past 15 years (in 1995 it had just \$25 million in revenue) mirrors the expansion of the HEMS industry as a whole.

"Obviously there's been a ton of growth in the industry," said Mike Allen, Air Methods' senior vice-president for HBS. According to Air Methods' 2009 annual report, the number of bases operated by commercial entities within the air medical industry had increased 35 percent over the last five years — leading to what the report called "overcapacity in certain markets." Because growth in the HEMS industry in general has now flattened, Air Methods is unlikely to see additional thousand-percent jumps in its flight operations. It does continue, however, to look for ways to expand its market share.

As so much of Air Methods' growth has been driven by acquisitions, its operational make-up has fluctuated over the years. Currently, a slight majority of its programs are HBS, due in part to the fact that CJ Systems' programs were predominantly hospital-based. However, its CBS programs generate considerably more revenue (around \$287 million in 2009, compared to \$199 million for the HBS division). Some of this is related to the community-based programs' faster adoption of newer, more cost-effective single-engine aircraft, a trend that increasingly is being reflected on the HBS side of the house, too. Regardless, Air Methods has chosen not to prioritize one service model over the other.

"We are focused on both equally," said Todd about the HBS and CBS divisions. "We think one of the unique attributes of our company is the high value we place on our partnerships with the hospitals."

The HEMS sector is an inherently difficult one in which to operate; Air Methods faces additional challenges due to its sheer size. "I'm not sure if a major airline reaches as many city pairs as we have bases," noted Ed Stockhausen, Air Methods' director of safety.

Helping its far-flung employees feel supported and connected, as well as helping them understand the priorities of the company, requires concerted effort. One key step in approaching these challenges has been the cultivation of a

**OPPOSITE** Air Methods operates from 125 hospital bases, as is the case here with this HealthNet Aeromedical Services' EC 145, and 113 community bases throughout the United States. **Bob Bird Photo**

**ABOVE LEFT** Air Methods' operational control center enhances safety.

**ABOVE RIGHT** Collectively, Air Methods crews conducted 99,249 patient transports in 2009.

**BELOW** Flight for Life, which began in 1972 in Denver, Colo., claims to be the nation's oldest hospital-based air ambulance program. It is now operated by Air Methods.

**Mike Reyno Photos**





**TOP** Air Methods provides pilots and mechanics to the AirMed program at the University of Utah Health Sciences Center. Air Methods has strong relationships with a number of hospitals across the country.

**Ted Carlson Photo**

**ABOVE** Air Methods has ordered three custom advanced aviation training devices from AeroSimulators to help improve pilot training.

**Mike Reyno Photo**

strong layer of middle managers with direct connections to the field. Said Air Methods chief pilot Chris Bassett, "Quite honestly, we rely on good people."

### KEEPING IT SAFE

Air Methods' 3,000 employees include around 1,000 pilots (simply tracking pilot records keeps five people employed full-time). The company's pilots voted to be represented by a collective bargaining unit in 2003 and signed a collective bargaining agreement in 2006. In late 2009, negotiations commenced on the CBA, and it was referred for mediation during the second quarter of 2009. In August, Air Methods reported in its second quarter 2010 earnings call that — after many months of inactivity — it had recommenced negotiations with the pilots' union, OPEIU (Office and Professional Employees International Union) Local 109.

Pilot turnover is low — the average Air Methods pilot's time in service is eight to 12 years. According to Bassett, the company's pilots have traditionally come from the military, but it is now seeing more civilian-trained ones. The company requires its pilots have a minimum of 2,000

hours of total flight time for visual flight rules programs, and 2,500 hours for instrument flight rules programs. New pilots attend a week-long basic indoctrination class at Air Methods' headquarters at Centennial Airport, south of Denver, then complete their training at their local bases.

The HEMS industry's high (and high-profile) fatal accident rate is an obvious area of concern for Air Methods. The company has responded in various ways, with a renewed focus on pilot training being one of them.

In 2009, Air Methods ordered three customized advanced aviation training devices (AATDs) from AeroSimulators. Two mobile AATDs will replicate the cockpits of Eurocopter AS 350s operated by Air Methods, and will travel between bases for on-site training. A third AATD, configured like an Air Methods Eurocopter EC 135, will be based permanently at the company's headquarters. At press time, the company was using basic simulators on loan from AeroSimulators while it awaited delivery of its custom models.

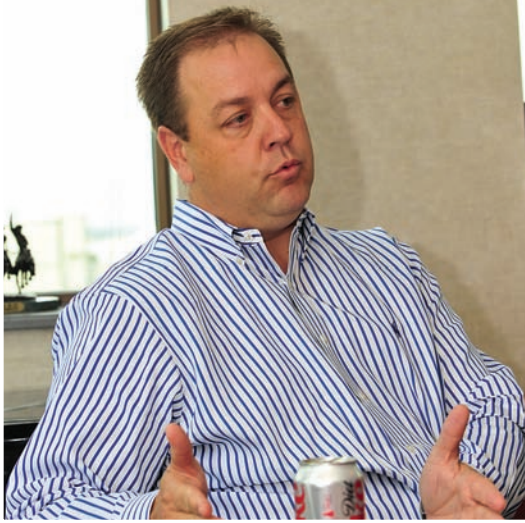
"What we're trying to do with the simulators is augment and improve in certain areas of training, namely recovery from inadvertent IMC [instrument meteorological conditions]," said Bassett. Like most HEMS pilots, Air Methods pilots routinely operate at night in areas underserved by the National Weather Service, making inadvertent IMC a constant threat. Historically, most inadvertent IMC training has been "under the hood," but view-limiting devices don't "build the same level of anxiety as when you go into actual IMC conditions," said Bassett. "You can give them [the pilots] the same level of realism in a simulator."

Another way in which Air Methods has augmented safety has been through its sophisticated operational control center (OCC). Located at the company's headquarters, the OCC was established to satisfy U.S. Federal Aviation Administration requirements for operational control — in other words, knowing exactly where all of the company's helicopters are and what they're doing at all times.

Air Methods has taken this one step further, however, by developing a flight management system that incorporates weather, mapping and satellite-tracking elements, issuing automatic alerts when a helicopter is approaching areas of poor weather or temporary flight restrictions (TFRs). The OCC is staffed at all times by a minimum of two people, at least one of which is a former Air Methods HEMS pilot. These specialists have the ability to monitor air traffic control frequencies across the country, and have a direct communications link with pilots in the cockpit, allowing them to provide pilots with up-to-date weather information and TFR advisories along their routes of flight. Because these specialists are experienced pilots themselves, they're also able to offer advice and help with decision-making, taking some of the pressure off the pilot in command.

"This is something we don't have to do — it's something over and above," said Steve Rice, an OCC specialist. "Its primary purpose is to give another level of safety to what we're doing in the field."

Another major element of Air Methods' safety program has been the company's commitment to equip every helicopter in its fleet with night vision goggles, helicopter terrain awareness and warning systems (HTAWS), XM WX



Satellite Weather and wire-strike protection kits. Because of the size of its fleet, this has been a long and expensive process. At press time, however, the company had already equipped around 60 percent of its helicopters with NVGs and wire-strike protection kits, and 40 percent with HTAWS and satellite weather.

In December 2009, Air Methods became the first helicopter operator to successfully exit Level 1 of the FAA's safety management system (SMS) trial project. As the first step in its adoption of SMS, Air Methods completed extensive gap analyses of all functional areas of the company with safety responsibility — including flight operations, maintenance, clinical and communications departments. According to director of safety Stockhausen, the SMS process is helping Air Methods ensure its safety risk management practices are consistent across the company.

"It gives our senior management clarity," said Stockhausen of SMS. He noted, "Most companies have some form of these processes in place. . . . You find something in your system that's fairly mature, and you build around it."

## FINDING THE THREAD

Air Methods' strategy of growth by acquisition has led to a fleet that is diverse, to say the least: the company operates 23 different helicopter models across its various bases. This naturally poses significant maintenance challenges, with the less common models (like the company's lone Bell 206L, in Idaho) presenting a particular problem.

"It's not the most efficient," said Archie Gray, Air Methods vice-president of aviation support services, about these orphan aircraft types. "We can be very efficient when we have 70 of them."

As Air Methods replaces outdated aircraft, it is trying to consolidate its fleet, with a bias toward the Eurocopter EC 130 and AS 350, as well as the Bell 407, particularly for its community-based programs. That said, it would not refuse to operate any aircraft that's adequate for the mission. "If it's what our customer wants, we'll run through fire for them," said Gray.

Air Methods still operates more twin-engine helicopters (196) than it does singles (118). It is also the largest operator of the EC 135 in the world, with 74 of them in its fleet.



Nevertheless, the company is increasingly embracing single-engine aircraft for their performance and — frankly — for their cost-effectiveness. According to CEO Todd, with hospitals increasingly focused on controlling costs, "going from twins to singles makes us more able to compete."

Supporting this shift has been advances in cockpit technologies that have dramatically improved the capabilities of single-engine helicopters. For example, Air Methods has developed a supplemental type certificate for the installation of the Garmin G500 electronic flight display in the EC 130; it is pursuing installations in the AS 350 and 407, as well. "The Garmin 500 really, in my opinion, exceeds, as a situational awareness tool, anything that we have in a twin-engine aircraft," said Allen (Air Methods senior VP of HBS). "I think the cockpit technology in the singles is definitely catching up to the twins."

Air Methods typically acquires between 20 and 25 new helicopters a year. Thanks to its strong products division (which will be highlighted in the Heli-Expo 2011 issue of *Vertical 911*), the company is able to do all of its completions in-house. The Air Methods completions center — at the main Air Methods facility in Colorado — installs everything from avionics to the company's own custom medical interiors. Indeed, it basically handles everything except for paint.

The Colorado facility is also where most repairs are done for aircraft based west of the Mississippi River. For aircraft based east of the Mississippi, most heavy maintenance is conducted at the company's facility in Pittsburgh, Pa. Air Methods also has regional repair facilities in Rialto, Calif; St. Louis, Mo; and Gainesville, Fla.

The aviation support services division has around 450 field mechanics, and an additional 150 employees in the main and regional repair stations. Employees at those regional centers, said Gray, "not only help by being available at the facility, but being able to go out into the field."

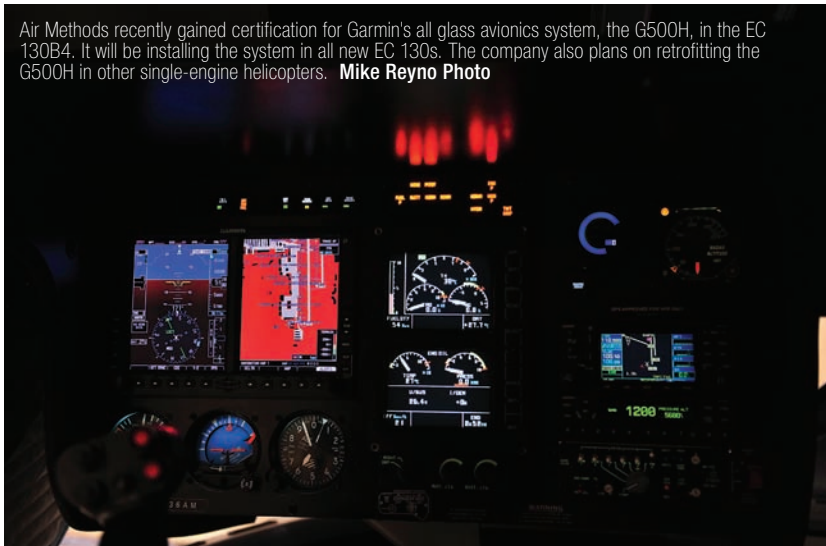
Finally, as one of the civilian helicopter industry's biggest customers, Air Methods has close working relationships with engine and other original equipment manufacturers. For example, it has worked hand-in-hand with Turbomeca to establish a new Level 3 Turbomeca engine repair shop at its Pittsburgh facility (Air Methods operates over 200 Turbomeca engines). These same OEMs regularly provide Air Methods' mechanics with on-site training, and the com-

**ABOVE LEFT** Air Methods CEO Aaron Todd told *Vertical* that he believes a further expansion of the HEMS fleet in the U.S. is unnecessary. **Mike Reyno Photo**

**ABOVE RIGHT** At press time, Air Methods had already equipped around 60 percent of its fleet with night vision goggles. **Mark Mennie Photo**



In late-2009, Air Methods became the launch customer for the Bell 429. The air-medical-configured ship is now operated by Mercy One in Des Moines, Iowa. The company continues to evaluate the model, but has not yet committed to additional aircraft. **Sheldon Cohen Photo**



Air Methods recently gained certification for Garmin's all glass avionics system, the G500H, in the EC 130B4. It will be installing the system in all new EC 130s. The company also plans on retrofitting the G500H in other single-engine helicopters. **Mike Reyno Photo**



Air Methods is working toward consolidating its single-engine fleet between the Eurocopter EC 130B4 and AS 350, and the Bell 407, especially with its community-based programs. **Mike Reyno Photo**

pany routinely sends its mechanics to factory maintenance courses, too.

### PLANNING ITS FUTURE

Despite being one of the industry's biggest helicopter operators, Air Methods doesn't consider itself a helicopter operator per se.

"We do see ourselves as a healthcare company that happens to be experts in aviation," said Todd. "We tend to compete most favorably when healthcare and aerospace overlap."

Consequently, as Air Methods explores areas for growth, it won't be straying into other sectors of aviation — its focus will remain squarely on the medical field. According to Todd, the company is looking at vertical integration with ground ambulance services, as well as opportunities in foreign markets. While Air Methods' products division currently represents only about five percent of its total revenue, that segment of the company is growing. In addition to the kits it manufactures for the HH-60L, it manufactures medical interiors for the Stryker medical evacuation vehicle, suggesting that the products division has considerable potential beyond just the aerospace market.

Primarily, however, the company's focus going forward is on building its hospital relationships: not only to maintain its hospital-based programs, but so it can have a competitive advantage should those hospitals decide to outsource their air medical operations. "We see our future tied with theirs," said Todd of Air Methods' hospital partners. "We're doing all we can to earn new hospital relationships."

Yet, according to Todd, the company is "not a low-cost operator. We believe we are differentiated on our safety record and our level of care." Air Methods charges its pilots with operating "legally, safely and prudently." And, as the helicopter industry's largest air medical company enters its fourth decade of operation, it is taking a similarly responsible approach to continuing its role as an industry leader. 